

February 5, 2014

AMARILLO  
921 North Bivins  
Amarillo, Texas 79107  
Phone 806.467.0607  
Fax 806.467.0622

ARTESIA  
408 West Texas Ave.  
Artesia, New Mexico 88210  
Phone 575.746.8768  
Fax 575.748.8905

HOBBS  
318 East Taylor Street  
Hobbs, New Mexico 88241  
Phone 505.393.4261  
Fax 505.393.4658

MIDLAND  
2901 State Highway 349  
Midland, Texas 79706  
Phone 432.522.2133  
Fax 432.522.2180

OKLAHOMA CITY  
7700 North Hudson Ave  
Suite 10  
Oklahoma City, Oklahoma 73116  
Phone 405.486.7030  
Fax 806.467.0622

SAN ANTONIO  
13111 Lookout Way  
San Antonio, TX 78233  
Phone 210.265.8025  
Fax 210.568.2191

ENVIRONMENTAL CONSULTING  
ENGINEERING  
DRILLING  
CONSTRUCTION  
SPILL MANAGEMENT  
GENERAL CONTRACTING

Toll Free: 866.742.0742  
www.talonlpe.com

Mr. Mike Bratcher  
**NMOCD District 2**  
811 S. 1<sup>st</sup> Street  
Artesia, NM 88210

Subject: **Soil Assessment and Remediation Work Plan**  
**Devon Energy Corp.**  
**Black Jack 1 Federal No. 4H**  
**API # 30-015-37065 2RP-1978**

Dear Mr. Bratcher,

Devon Energy has contracted Talon/LPE (Talon) to perform soil assessment and remediation services at the above referenced Black Jack 1 Federal No. 4H release. The results of our soil assessment and proposed remediation activities consist of the following:

#### **Incident Date**

October 3, 2013

#### **Background Information**

The Black Jack 1 Federal No. 4H is located approximately thirty-seven (37) miles southeast of Carlsbad, New Mexico. The legal location for the site is Section 1, Township 24 South and Range 30 East in Eddy County, New Mexico. More Specifically the latitude and longitude for the release are 32.2407998 North and - 103.835714 West.

According to the soil survey provided by the United States Department of Agriculture National Resources Conservation Services, the soil in this area is made up of Tonuco loamy fine sand with 0 to 3 percent slopes. Per the New Mexico Bureau of Geology and Mineral Resources, the local surface and shallow geology, Paleozoic Age sedimentary deposits, is comprised of the Salado formations which include loamy alluvium and eolian sands underlain by petrocalcic soils and hard caliche. The New Mexico State Engineer web site indicates the nearest ground water data to be in S34-T23S-R30E. The ground water in Section 34 is reported to be a depth of 440' below ground surface (bgs). The referenced groundwater data is presented in Appendix I.

The ranking for this site is 0 based on the as following:

Depth to ground water	>100'
Wellhead Protection Area	>1000'
Distance to surface water body	>1000'

## **Incident Description**

On October 3, 2013 a flow line was found to be leaking. The leak occurred on a steep incline in the middle of the pasture, releasing 2 barrels of produced water and 8 barrels of oil. The line was shut in and a vacuum truck was immediately called to the location. The poly line was subsequently replaced. The vacuum truck recovered 0.5 barrels of produced water and 0.5 barrels of oil.

## **Actions Taken**

On October 31, 2013 Talon/LPE mobilized personnel to begin the site assessment and soil sampling for the construction of a work plan. Grab soil samples were collected utilizing a hand auger to a depth of 2-feet below ground surface. Soil sample locations are illustrated on the attached site plan.

On December 12, 2013 Talon returned to the site for additional vertical delineation. Grab soil samples were collected utilizing a trackhoe to a depth of 15-feet deep.

All soil samples were collected by Talon personnel wearing clean nitrile gloves. The soil samples were placed in laboratory provided sample containers, iced and transported to Cardinal Laboratories in Hobbs, New Mexico for analysis. The samples were tested for TPH (Total Petroleum Hydrocarbons) using EPA Method 8015M, and volatile organics (BTEX) using EPA Method 8021B. The chloride samples were analyzed per method SM4500Cl-B. The complete laboratory reports are attached as Appendix II.

## **Analytical Results**

Analytical results received from Cardinal Laboratories are summarized below:

November 13, 2013

<u>Sample</u>	<u>Depth</u>	<u>BTEX</u>	<u>TPH</u>	<u>Chlorides (mg/kg)</u>
S-1	1'	<0.300	439	12000
	2'	0.548	1131.1	12000
S-2	1'	<0.300	<10	10100
	2'	0.355	335.4	9460
S-3	1'	<0.300	15.6	13600
	2'	0.465	817.5	12700
S-4	1'	0.387	123.2	17400
	2'	<0.300	32	12400
S-5	1'	<0.300	<10	<16
	2'	<0.300	<10	<16

December 20, 2013

<u>Sample</u>	<u>Depth</u>	<u>BTEX</u>	<u>TPH</u>	<u>Chlorides (mg/kg)</u>
TP-1	5'	--	--	672
	10'	--	--	32
	15'	--	--	64
TP-2	5'	--	--	<16
	10'	--	--	64
	15'	--	--	48

--Analyte Not Tested

For this site's ranking, New Mexico Oil Conservation District action level criterion for BTEX is 50 mg/kg, Benzene is 10 mg/kg and TPH is 5,000 mg/kg. The chloride remediation standard is considered to be 1,000 mg/kg.

### **Summary**

- Ground water in the project vicinity is 440-feet below land surface per the New Mexico State Engineer Database.
- Based on the depth to groundwater, it is unlikely that the impacts identified from this release will pose a threat to groundwater after proposed remediation activities are complete.

### **Proposed Remedial Actions**

- The impacted area between sample locations S-1 and S-2 will be excavated to a depth of 3-feet deep. The impacted area between sample locations S-3 and S-4 will be excavated to a depth of 2.5-feet deep. The excavated soil will be transported to a NMOCD approved solid waste disposal facility.
- The bottom and sidewalls of the excavation will be tested for chlorides using the field titration method to guide the excavation process.
- The excavated area will be backfilled to grade using new material transported from a local borrow pit and contoured to match existing location.
- A final report documenting all field activities and lab reports will be provided to the NMOCD Artesia Office including Form C-141.

Should you have any questions or if further information is required, please do not hesitate to contact our office at 575.746.8768.

Respectfully submitted,

TALON/LPE

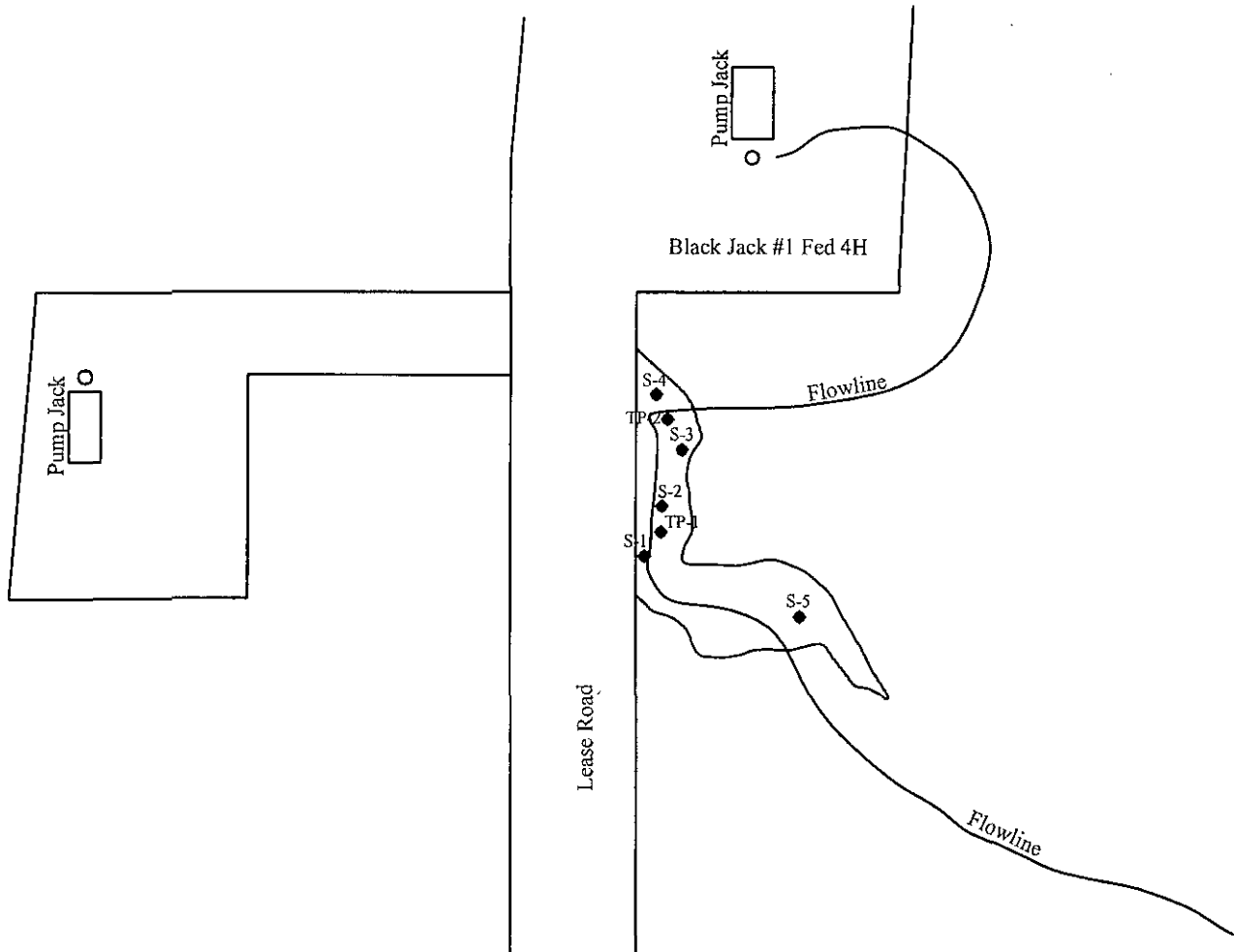
A handwritten signature in cursive script, reading "Kimberly M. Wilson".

Kimberly M. Wilson  
Project Manager

A handwritten signature in cursive script, reading "David J. Adkins".

David J. Adkins  
District Manager

## **SITE MAP**



Twin Wells Road



Legend	
●	- Sample Location
~	- Visually Impacted Area



Date: 01/08/2014

Scale: NTS

Drawn By: TJS

Black Jack #1 Fed 4H  
Devon Energy Corporation  
Eddy County, New Mexico  
Figure 1 - Site Plan

**APPENDIX I**  
**GROUNDWATER DATA**  
**INITIAL C-141**



# New Mexico Office of the State Engineer

## Water Column/Average Depth to Water

(A CLW##### in the  
POD suffix indicates the  
POD has been replaced  
& no longer serves a  
water right file.)

(R=POD has  
been replaced,  
O=orphaned,  
C=the file is  
closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
C 02095			ED	2	3	34	23S	30E		606337	3569759*	3623	554	440	114
C 02780			ED	2	3	2	23	24S	30E	608535	3563857*	3907	505		

Average Depth to Water: 440 feet

Minimum Depth: 440 feet

Maximum Depth: 440 feet

Record Count: 2

UTMNAD83 Radius Search (in meters):

Easting (X): 609310

Northing (Y): 3567687

Radius: 4000

\*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.



District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

**RECEIVED**  
State of New Mexico  
Energy Minerals and Natural Resources  
OCT 07 2013  
Oil Conservation Division  
220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-141  
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in  
accordance with 19.15.29 NMAC.

### Release Notification and Corrective Action

*njm/1328128519*

<b>OPERATOR</b>		<input checked="" type="checkbox"/> Initial Report	<input type="checkbox"/> Final Report
Name of Company <b>Devon Energy</b>	<b>6137</b>	Contact <b>Dan Suniga</b>	
Address <b>PO Box 250 Artesia, NM 88211</b>		Telephone No. <b>575-390-5850</b>	
Facility Name <b>Black Jack 1 Fed 4H</b>		Facility Type <b>Oil</b>	
Surface Owner	Mineral Owner	API No. <b>30-015-37065</b>	

### LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
N	1	24S	30E	330	SOUTH	2230	WEST	EDDY

Latitude: 32.2405799853399 Longitude: -103.835714231733

### NATURE OF RELEASE

Type of Release: <b>Spill</b>	Volume of Release <b>8bbl Oil/2bbl PW</b>	Volume Recovered <b>1/2bbl Oil - 1/2bbl PW</b>
Source of Release: <b>Flow line leak</b>	Date and Hour of Occurrence <b>10/3/13 09:00am</b>	Date and Hour of Discovery <b>10/3/13 09:00am</b>
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? <b>Matt Howell-Lease Operator</b> <b>Don Mayberry-Superintendent</b> <b>Mike Brasher-NMOCD</b> <b>Dan Suniga-Foreman</b> <b>Scott Poe-EHS</b> <b>Kim Ames-BLM</b>	
By Whom? <b>Hubert Perry</b>	Date and Hour: <b>10/3/13 10:30am</b>	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\*

Approximately 9 am October 3rd Supervisor for the Black Jack 1 Fed 4H was contacted by Banta gang and informed him of a flow line leak on top of the pipe. Supervisor advised to shut well in and isolate area because of cattle in the pasture.

Describe Area Affected and Cleanup Action Taken.\*

It occurred on a steep incline therefore the area affected was 466ft x 2ft due to it flowing down the side of the incline. 8bbls PW and 2bbls Oil were spilled. Notified vacuum truck to pick up spill (1/2bbl PW/ and 1/2bbl of Oil recovered) and contacted all necessary personnel.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: <i>Veronica Teel</i>		<b>OIL CONSERVATION DIVISION</b>	
Printed Name: <b>Veronica Teel</b>		Approved by Environmental Specialist: <i>[Signature]</i>	
Title: <b>Field Admin Support</b>		Approval Date: <b>OCT 08 2013</b>	Expiration Date:
E-mail Address: <b>Veronica.Teel@dmv.com</b>		Conditions of Approval: Remediation per OCD Rule & Guidelines, & like approval by BLM. <b>SUBMIT REMEDIATION</b>	
Date: <b>October 3, 2013</b>	Phone: <b>575-748-9933</b>	Attached <input type="checkbox"/>	

\* Attach Additional Sheets If Necessary

PROPOSAL NO LATER THAN:

November 8, 2013

2RP-1978

**APPENDIX II**  
**LABORATORY RESULTS**



PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

---

November 13, 2013

DAVID ADKINS

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: BLACKJACK 1 FEDERAL #4H

Enclosed are the results of analyses for samples received by the laboratory on 11/04/13 15:05.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Coley D. Keene". The signature is written in a cursive, flowing style.

Celey D. Keene

Lab Director/Quality Manager

**Analytical Results For:**

 TALON LPE  
 DAVID ADKINS  
 408 W. TEXAS AVE.  
 ARTESIA NM, 88210  
 Fax To: (575) 745-8905

 Received: 11/04/2013  
 Reported: 11/13/2013  
 Project Name: BLACKJACK 1 FEDERAL #4H  
 Project Number: 700794.076.01  
 Project Location: N-1-24-30

 Sampling Date: 10/31/2013  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: S-1 1' (H302684-01)**

BTEX 8021B			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/07/2013	ND	2.20	110	2.00	6.58	
Toluene*	<0.050	0.050	11/07/2013	ND	2.24	112	2.00	7.60	
Ethylbenzene*	<0.050	0.050	11/07/2013	ND	2.28	114	2.00	7.83	
Total Xylenes*	<0.150	0.150	11/07/2013	ND	6.83	114	6.00	8.29	
Total BTEX	<0.300	0.300	11/07/2013	ND					

Surrogate: 4-Bromofluorobenzene (PID) 111 % 89.4-126

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AP				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	12000	16.0	11/06/2013	ND	416	104	400	3.92	

TPH 8015M			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	11/05/2013	ND	209	105	200	3.08	
DRO >C10-C28	439	10.0	11/05/2013	ND	215	107	200	3.07	

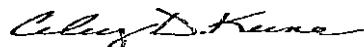
Surrogate: 1-Chlorooctane 92.9 % 65.2-140

Surrogate: 1-Chlorooctadecane 104 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

TALON LPE  
DAVID ADKINS  
408 W. TEXAS AVE.  
ARTESIA NM, 88210  
Fax To: (575) 745-8905

Received: 11/04/2013  
Reported: 11/13/2013  
Project Name: BLACKJACK 1 FEDERAL #4H  
Project Number: 700794.076.01  
Project Location: N-1-24-30

Sampling Date: 10/31/2013  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: S-1 2' (H302684-02)**

BTEX 8021B		mg/kg	Analyzed By: MS				S-04		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/07/2013	ND	2.20	110	2.00	6.58	
Toluene*	<0.050	0.050	11/07/2013	ND	2.24	112	2.00	7.60	
Ethylbenzene*	0.098	0.050	11/07/2013	ND	2.28	114	2.00	7.83	
Total Xylenes*	0.450	0.150	11/07/2013	ND	6.83	114	6.00	8.29	
Total BTEX	0.548	0.300	11/07/2013	ND					

Surrogate: 4-Bromofluorobenzene (PID) 138 % 89.4-126

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	12000	16.0	11/06/2013	ND	416	104	400	3.92	
TPH 8015M		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	21.1	10.0	11/05/2013	ND	209	105	200	3.08	
DRO >C10-C28	1110	10.0	11/05/2013	ND	215	107	200	3.07	

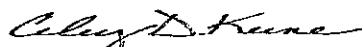
Surrogate: 1-Chlorooctane 103 % 65.2-140

Surrogate: 1-Chlorooctadecane 146 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

TALON LPE  
DAVID ADKINS  
408 W. TEXAS AVE.  
ARTESIA NM, 88210  
Fax To: (575) 745-8905

Received:	11/04/2013	Sampling Date:	10/31/2013
Reported:	11/13/2013	Sampling Type:	Soil
Project Name:	BLACKJACK 1 FEDERAL #4H	Sampling Condition:	Cool & Intact
Project Number:	700794.076.01	Sample Received By:	Jodi Henson
Project Location:	N-1-24-30		

**Sample ID: S-2 1' (H302684-03)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/07/2013	ND	2.20	110	2.00	6.58	
Toluene*	<0.050	0.050	11/07/2013	ND	2.24	112	2.00	7.60	
Ethylbenzene*	<0.050	0.050	11/07/2013	ND	2.28	114	2.00	7.83	
Total Xylenes*	<0.150	0.150	11/07/2013	ND	6.83	114	6.00	8.29	
Total BTEX	<0.300	0.300	11/07/2013	ND					

Surrogate: 4-Bromofluorobenzene (PID) 108 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	10100	16.0	11/06/2013	ND	416	104	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	11/05/2013	ND	209	105	200	3.08	
DRO >C10-C28	<10.0	10.0	11/05/2013	ND	215	107	200	3.07	

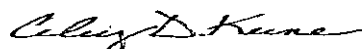
Surrogate: 1-Chlorooctane 96.2 % 65.2-140

Surrogate: 1-Chlorooctadecane 104 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

TALON LPE  
DAVID ADKINS  
408 W. TEXAS AVE.  
ARTESIA NM, 88210  
Fax To: (575) 745-8905

Received: 11/04/2013  
Reported: 11/13/2013  
Project Name: BLACKJACK 1 FEDERAL #4H  
Project Number: 700794.076.01  
Project Location: N-1-24-30

Sampling Date: 10/31/2013  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: S-2 2' (H302684-04)**

BTX 8021B		mg/kg	Analyzed By: MS				S-04		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/08/2013	ND	2.15	107	2.00	0.550	
Toluene*	<0.050	0.050	11/08/2013	ND	2.18	109	2.00	0.818	
Ethylbenzene*	0.061	0.050	11/08/2013	ND	2.23	112	2.00	1.48	
Total Xylenes*	0.294	0.150	11/08/2013	ND	6.72	112	6.00	2.51	
Total BTX	0.355	0.300	11/08/2013	ND					

Surrogate: 4-Bromofluorobenzene (PID) 130 % 89.4-126

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	9460	16.0	11/06/2013	ND	416	104	400	3.92	

TPH 8015M		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	10.4	10.0	11/05/2013	ND	209	105	200	3.08	
DRO >C10-C28	325	10.0	11/05/2013	ND	215	107	200	3.07	

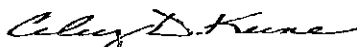
Surrogate: 1-Chlorooctane 93.4 % 65.2-140

Surrogate: 1-Chlorooctadecane 110 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

TALON LPE  
DAVID ADKINS  
408 W. TEXAS AVE.  
ARTESIA NM, 88210  
Fax To: (575) 745-8905

Received:	11/04/2013	Sampling Date:	10/31/2013
Reported:	11/13/2013	Sampling Type:	Soil
Project Name:	BLACKJACK 1 FEDERAL #4H	Sampling Condition:	Cool & Intact
Project Number:	700794.076.01	Sample Received By:	Jodi Henson
Project Location:	N-1-24-30		

**Sample ID: S-3 1' (H302684-05)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/08/2013	ND	2.15	107	2.00	0.550	
Toluene*	<0.050	0.050	11/08/2013	ND	2.18	109	2.00	0.818	
Ethylbenzene*	<0.050	0.050	11/08/2013	ND	2.23	112	2.00	1.48	
Total Xylenes*	<0.150	0.150	11/08/2013	ND	6.72	112	6.00	2.51	
Total BTEX	<0.300	0.300	11/08/2013	ND					

Surrogate: 4-Bromofluorobenzene (PID) 109 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	13600	16.0	11/06/2013	ND	416	104	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	11/05/2013	ND	209	105	200	3.08	
DRO >C10-C28	15.6	10.0	11/05/2013	ND	215	107	200	3.07	

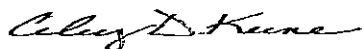
Surrogate: 1-Chlorooctane 102 % 65.2-140

Surrogate: 1-Chlorooctadecane 109 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager



**Analytical Results For:**

TALON LPE  
DAVID ADKINS  
408 W. TEXAS AVE.  
ARTESIA NM, 88210  
Fax To: (575) 745-8905

Received:	11/04/2013	Sampling Date:	10/31/2013
Reported:	11/13/2013	Sampling Type:	Soil
Project Name:	BLACKJACK 1 FEDERAL #4H	Sampling Condition:	Cool & Intact
Project Number:	700794.076.01	Sample Received By:	Jodi Henson
Project Location:	N-1-24-30		

**Sample ID: S-3 2' (H302684-06)**

BTEX 8021B		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/08/2013	ND	2.15	107	2.00	0.550	
Toluene*	<0.050	0.050	11/08/2013	ND	2.18	109	2.00	0.818	
Ethylbenzene*	<b>0.083</b>	0.050	11/08/2013	ND	2.23	112	2.00	1.48	
Total Xylenes*	<b>0.382</b>	0.150	11/08/2013	ND	6.72	112	6.00	2.51	
Total BTEX	<b>0.465</b>	0.300	11/08/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 133 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<b>12700</b>	16.0	11/06/2013	ND	416	104	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<b>53.5</b>	10.0	11/05/2013	ND	209	105	200	3.08	
DRO >C10-C28	<b>764</b>	10.0	11/05/2013	ND	215	107	200	3.07	

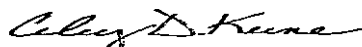
Surrogate: 1-Chlorooctane 114 % 65.2-140

Surrogate: 1-Chlorooctadecane 123 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

TALON LPE  
DAVID ADKINS  
408 W. TEXAS AVE.  
ARTESIA NM, 88210  
Fax To: (575) 745-8905

Received: 11/04/2013  
Reported: 11/13/2013  
Project Name: BLACKJACK 1 FEDERAL #4H  
Project Number: 700794.076.01  
Project Location: N-1-24-30

Sampling Date: 10/31/2013  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: S-4 1' (H302684-07)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/08/2013	ND	2.15	107	2.00	0.550	
Toluene*	0.090	0.050	11/08/2013	ND	2.18	109	2.00	0.818	
Ethylbenzene*	0.061	0.050	11/08/2013	ND	2.23	112	2.00	1.48	
Total Xylenes*	0.236	0.150	11/08/2013	ND	6.72	112	6.00	2.51	
Total BTEX	0.387	0.300	11/08/2013	ND					

Surrogate: 4-Bromofluorobenzene (PID) 114 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	17400	16.0	11/06/2013	ND	416	104	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	10.2	10.0	11/05/2013	ND	209	105	200	3.08	
DRO >C10-C28	113	10.0	11/05/2013	ND	215	107	200	3.07	

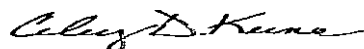
Surrogate: 1-Chlorooctane 98.8 % 65.2-140

Surrogate: 1-Chlorooctadecane 104 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

TALON LPE  
DAVID ADKINS  
408 W. TEXAS AVE.  
ARTESIA NM, 88210  
Fax To: (575) 745-8905

Received:	11/04/2013	Sampling Date:	10/31/2013
Reported:	11/13/2013	Sampling Type:	Soil
Project Name:	BLACKJACK 1 FEDERAL #4H	Sampling Condition:	Cool & Intact
Project Number:	700794.076.01	Sample Received By:	Jodi Henson
Project Location:	N-1-24-30		

**Sample ID: S-4 2' (H302684-08)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/08/2013	ND	2.15	107	2.00	0.550	
Toluene*	<0.050	0.050	11/08/2013	ND	2.18	109	2.00	0.818	
Ethylbenzene*	<0.050	0.050	11/08/2013	ND	2.23	112	2.00	1.48	
Total Xylenes*	<0.150	0.150	11/08/2013	ND	6.72	112	6.00	2.51	
Total BTEX	<0.300	0.300	11/08/2013	ND					

Surrogate: 4-Bromofluorobenzene (PID) 111 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	12400	16.0	11/06/2013	ND	416	104	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	11/05/2013	ND	209	105	200	3.08	
DRO >C10-C28	32.0	10.0	11/05/2013	ND	215	107	200	3.07	

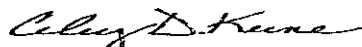
Surrogate: 1-Chlorooctane 97.4 % 65.2-140

Surrogate: 1-Chlorooctadecane 103 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

TALON LPE  
DAVID ADKINS  
408 W. TEXAS AVE.  
ARTESIA NM, 88210  
Fax To: (575) 745-8905

Received: 11/04/2013  
Reported: 11/13/2013  
Project Name: BLACKJACK 1 FEDERAL #4H  
Project Number: 700794.076.01  
Project Location: N-1-24-30

Sampling Date: 10/31/2013  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: S-5 1' (H302684-09)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/08/2013	ND	2.15	107	2.00	0.550	
Toluene*	<0.050	0.050	11/08/2013	ND	2.18	109	2.00	0.818	
Ethylbenzene*	<0.050	0.050	11/08/2013	ND	2.23	112	2.00	1.48	
Total Xylenes*	<0.150	0.150	11/08/2013	ND	6.72	112	6.00	2.51	
Total BTEX	<0.300	0.300	11/08/2013	ND					

Surrogate: 4-Bromofluorobenzene (PID) 109 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	11/06/2013	ND	416	104	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	11/05/2013	ND	209	105	200	3.08	
DRO >C10-C28	<10.0	10.0	11/05/2013	ND	215	107	200	3.07	

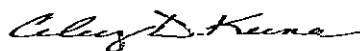
Surrogate: 1-Chlorooctane 96.7 % 65.2-140

Surrogate: 1-Chlorooctadecane 98.3 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

TALON LPE  
DAVID ADKINS  
408 W. TEXAS AVE.  
ARTESIA NM, 88210  
Fax To: (575) 745-8905

Received:	11/04/2013	Sampling Date:	10/31/2013
Reported:	11/13/2013	Sampling Type:	Soil
Project Name:	BLACKJACK 1 FEDERAL #4H	Sampling Condition:	Cool & Intact
Project Number:	700794.076.01	Sample Received By:	Jodi Henson
Project Location:	N-1-24-30		

**Sample ID: S-5 2' (H302684-10)**

BTEX 8021B			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/08/2013	ND	2.15	107	2.00	0.550	
Toluene*	<0.050	0.050	11/08/2013	ND	2.18	109	2.00	0.818	
Ethylbenzene*	<0.050	0.050	11/08/2013	ND	2.23	112	2.00	1.48	
Total Xylenes*	<0.150	0.150	11/08/2013	ND	6.72	112	6.00	2.51	
Total BTEX	<0.300	0.300	11/08/2013	ND					

Surrogate: 4-Bromofluorobenzene (PID) 108 % 89.4-126

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AP				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	11/06/2013	ND	416	104	400	3.92	

TPH 8015M			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	11/05/2013	ND	209	105	200	3.08	
DRO >C10-C28	<10.0	10.0	11/05/2013	ND	215	107	200	3.07	

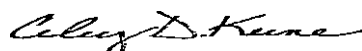
Surrogate: 1-Chlorooctane 103 % 65.2-140

Surrogate: 1-Chlorooctadecane 105 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

### Notes and Definitions

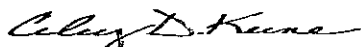
- S-04            The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
- ND            \*    Analyte NOT DETECTED at or above the reporting limit
- RPD           Relative Percent Difference
- \*\*            Samples not received at proper temperature of 6°C or below.
- \*\*\*           Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C  
Samples reported on an as received basis (wet) unless otherwise noted on report

---

Cardinal Laboratories

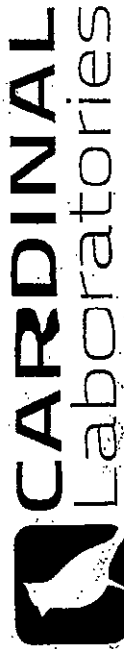
\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



---

Celey D. Keene, Lab Director/Quality Manager



101 East Main St, Hobbs, NM 88240  
(505) 393-2325 FAX (505) 393-2476

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

BIRNTO										ANALYSIS REQUEST																																																											
Company Name: <u>Cardinal Laboratories</u>										P.O. #:																																																											
Project Manager: <u>David Johnson</u>										Company: <u>Jalen</u>																																																											
Address: <u>408 W. 1st St</u>										Attn:																																																											
City: <u>Albuquerque</u>										Address:																																																											
Phone #: <u>505-746-8968</u>										City:																																																											
Project #: <u>700994.076.01</u>										State: <u>NM</u>																																																											
Project Name: <u>Black Rock 1, 2nd #4H</u>										Zip:																																																											
Project Location: <u>N-1-21-30</u>										Phone #:																																																											
Sampler Name: <u>Steve Barge</u>										Fax #:																																																											
FOR LAB USE ONLY										PRESERV										SAMPLING																																																	
Lab I.D.										OTHER:										ACID/BASE:										ICE / COOL:										OTHER:										DATE										TIME									
H302684										1										S-2										2										10/31/13										1:52																			
										2										S-2										2										10/31/13										1:57																			
										3										S-2										2										10/31/13										2:04																			
										4										S-2										2										10/31/13										2:11																			
										5										S-3										2										10/31/13										2:17																			
										6										S-3										2										10/31/13										2:23																			
										7										S-4										2										10/31/13										2:29																			
										8										S-4										2										10/31/13										2:31																			
										9										S-5										1										10/31/13										2:34																			
										10										S-5										1										10/31/13										3:32																			

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analysis. All claims, including those for negligence and other causes, shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruption, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services rendered by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: [Signature] Date: 11/4/13 Time: 13:05 Received By: David Johnson

Relinquished By: [Signature] Date: 11/4/13 Time: 13:05 Received By: David Johnson

Delivered By: (Circle One) 3.20 Sample Condition: Cool ☒ Intact ☐ Yes ☐ No ☐ Yes ☐ No

Sampler - UPS - Bus - Other: UPS

Phone Result: ☐ Yes ☐ No Add'l Phone #: 505-393-2476

Fax Result: ☐ Yes ☐ No Add'l Fax #: 505-393-2476

REMARKS: 54

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476



PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

---

December 20, 2013

DAVID ADKINS

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: BLACKJACK 1 FEDERAL #4H

Enclosed are the results of analyses for samples received by the laboratory on 12/13/13 14:40.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celest D. Keene". The signature is written in a cursive, flowing style.

Celest D. Keene

Lab Director/Quality Manager



**Analytical Results For:**

TALON LPE  
DAVID ADKINS  
408 W. TEXAS AVE.  
ARTESIA NM, 88210  
Fax To: (575) 745-8905

Received: 12/13/2013  
Reported: 12/20/2013  
Project Name: BLACKJACK 1 FEDERAL #4H  
Project Number: 700794.076.01  
Project Location: N-1-24-30

Sampling Date: 12/12/2013  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Amanda Ponce

**Sample ID: TP-1 5' (H303037-01)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	672	16.0	12/20/2013	ND	400	100	400	3.92	

**Sample ID: TP-1 10' (H303037-02)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	12/20/2013	ND	400	100	400	3.92	

**Sample ID: TP-1 15' (H303037-03)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	12/20/2013	ND	400	100	400	3.92	

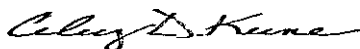
**Sample ID: TP-2 5' (H303037-04)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	12/20/2013	ND	400	100	400	3.92	

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

TALON LPE  
DAVID ADKINS  
408 W. TEXAS AVE.  
ARTESIA NM, 88210  
Fax To: (575) 745-8905

Received: 12/13/2013  
Reported: 12/20/2013  
Project Name: BLACKJACK 1 FEDERAL #4H  
Project Number: 700794.076.01  
Project Location: N-1-24-30

Sampling Date: 12/12/2013  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Amanda Ponce

**Sample ID: TP-2 10' (H303037-05)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	12/20/2013	ND	400	100	400	3.92	


**Sample ID: TP-2 15' (H303037-06)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	12/20/2013	ND	400	100	400	3.92	

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

### Notes and Definitions

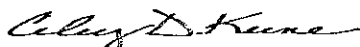
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

---

Cardinal Laboratories

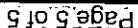
\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



---

Celey D. Keene, Lab Director/Quality Manager



**101 East Marland, Hobbs, NM 88240  
(575) 393-2326 FAX (575) 393-2476**

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476